

Advanced Technology Division

Program Learning Outcomes - 2005

Automotive Technology	Program Courses										General Education									
	AM 143 Brakes	AM 145 Engine Repair	AM 147 Suspension and Steering	AM 149 Manual Drive Train and Axles	AM 242 Automatic Transmissions/Transaxle	AM 243 Electrical and Electronic Systems	AM 244 Engine Performance	AM 246 Heating and Air Conditioning	AM 280 Cooperative Education*	HE 125 Workplace Safety	HE 252 First Aid	WR 115W Intro to College Writing	WLD 121 Shielded Metal Arc Welding 1	Sp 100 Basic Communications	SP 105 Listening & Critical Thinking	SP 218 Interpersonal Communications	CS 120 Concepts of Computing	CG 203 Human Relations at Work	MTH 076 Applied Geometry for Technicians	EET 129 Electrical Theory 1
Associate Degree Credit Hours (107 Total Credits)	8	12	6	6	12	12	12	4	3	3	3	3	4	4	4	4	4	3	4	4
Certificate Credit Hours (96 Total Credits)	8	12	6	6	12	12	12	4												4
Program Learning Outcomes																				
Demonstrate employability skills required for initial employment and advancement in the industry that include: attendance, proper attire, customer relations, following directions, working in teams, and understanding work rules and ethics.	P	P	P	P	P	P	P	P	P	S			P		P		S	P		S
Demonstrate safe work practices and tool usage while performing operations in a shop environment.	P	P	P	P	P	P	P	P	P	P			P							S
Demonstrate technical skills and knowledge to pass the certification exams in the eight areas of Automotive Service Excellence Standards: Electrical/Electronic Systems, Automatic Transmissions/Transaxle, Manual Drive Train and Axles, Suspension and Steering, Brakes, Heating and Air Conditioning, Engine Performance, and Engine Repairs.	P	P	P	P	P	P	P	P	S				S						S	P
Demonstrate technical abilities in researching, accessing and interpreting written, computer program or web-based reference materials to service and repair automobiles.	P	P	P	P	P	P	P	P	S			S			P		S			
Perform computations for gear ratios, engine displacement, electrical circuits, power output, vehicle alignment angles, conversion between the metric system and standard system, and use of precision measuring tools.	P	P	P	P	P	P	P	P	S										P	P
Diagnose and repair current model vehicles using advanced diagnostic tools and equipment.	P	P	P	P	P	P	P	P	S								S			
Core Abilities																				
Communicate effectively.	P	P	P	P	P	P	P	P	P			P	S		P			P	S	S
Think critically and solve problems effectively.	P	P	P	P	P	P	P	P	S			S	S		P		P	P	P	P
Increase understanding of the relationship between self and community, including self-awareness and personal responsibility.	S	S	S	S	S	S	S	S	P						P			P		
Explore academic disciplines of liberal arts, social sciences, and physical sciences.										P		P	S		P		P	P	P	P
Learning College Principles																				
Learners are active partners in the learning process.	P	P	P	P	P	P	P	P	P											
Learners are self-directed.	P	P	P	P	P	P	P	P	P											
Multiple learning options for diverse learners.	S	S	S	S	S	S	S	S	S											
Learning is promoted across organizational boundaries.	S	S	S	S	S	S	S	S	S											
Learning is substantive and documented.	P	P	P	P	P	P	P	P	P											
Assessment Methods																				
Technical Skill Performance Observation/Evaluation	P	P	P	P	P	P	P	P	P											
Employability Skills Evaluation	S	S	S	S	S	S	S	S	P											
Group Project																				
Journaling																				
Library Research																				
Oral Report/Presentation																				
Peer Assessment																				
Portfolio																				
Pre and Post Test																				
Project Evaluation																				
Quizzes																				
Self Assessment																				
Written Report																				
Written Tests/Examinations																				

P = this is a primary course for meeting the program learning outcome, core ability, learning college principle, or assessment method.
S = this course meets some of the program learning outcome, core ability, learning college principle or assessment method.

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Automotive Technology

Program Learning Outcomes/Goals	Assessment Indicators
1) Demonstrate employability skills required for initial employment and advancement in the industry that include: attendance, proper attire, customer relations, following directions, working in teams, and understanding work rules and ethics.	80% of the first year students will qualify for the "select student" status by receiving a recommendation from a full-time contracted faculty member. 90% percent of the second year students will complete their programs in the "entry level employee" status. Criteria to qualify for the "select" status will be determined and published by the faculty prior to the start of the academic year.
2) Demonstrate safe work practices and tool usage while performing operations in a shop environment.	95% of all students will pass a shop safety written and demonstration test.
3) Demonstrate technical skills and knowledge to pass the certification exams in the eight areas of Automotive Service Excellence Standards: Electrical/Electronic Systems, Automatic Transmissions/Transaxle, Manual Drive Trains and Axles, Suspension and Steering, Brakes, Heating and Air Conditioning, Engine Performance, and Engine Repairs.	95% of students who complete the program will have gained necessary competencies in eight ASE major areas to pass the certification exams.
4) Perform computations for gear ratios, engine displacement, electrical circuits, power output, vehicle alignment angles, conversion between the metric system and standard system, and use of precision measuring tools.	95% of the program completers will pass a final program computations examination with a 70% or better score.
5) Use appropriate library and information resources to research professional issues and support lifelong learning.	All students will conduct research with citations in a written report in both the first and second year of the program.
6) Diagnose and repair current model vehicles using advanced diagnostic tools and equipment.	All second year students will diagnose and repair, using advanced tools and equipment, a test vehicle with faculty disabled components. All of the disabled components must be identified and properly repaired.

Advanced Technology Division Meeting to Discuss Program Assessment 9-22-05

Automotive Technology

We chose program outcome no.3 from our unit plan; Demonstrate technical skills and knowledge to pass the certification exams in the eight areas of Automotive Service Excellence. Ways to assess this outcome are: 1] Use of the end of program tests offered by NATEF, the educational program certifying arm of the National Institute for Automotive Service Excellence [ASE]. Our program is NATEF certified. We have used this tool for three years. 2] Obtain feedback from students who choose to take the ASE certification exams. These are offered twice yearly through an independent testing organization locally and are available

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to anyone. There is expense involved, but most employers are requiring ASE certification of their employees, so many students take these tests. If they take one or more tests while they are students, feedback is easy to obtain. Any tests taken after completion of the program will require some method of information gathering to be devised. ASE will not provide test results to anyone other than the test taker. 3] Information could be provided by members of the advisory committee or employers of former students as to ASE certifications and technical skills. 4] Cooperative education placement of students in repair shops provides documentation of both technical skills and employability skills. We use this information now, but we should document it. Marv probably has this documentation available in document form.

Tom Kadash Automotive Technology

Program Operating Analysis - FY 2006

Automotive Technology

	Fiscal Year 2006	Expected Model	Actual	Difference	IRAP	Analysis
1	Enrollment	M				High, Medium or Low Cost Program
2	Reimbursable Student FTE	55.18	56.84		59.0	510 contact hours = 1 R-SFTE
3	Credit Hour Student FTE	32.00	32.96		47.4	45 Credit Hours = 1 CrdHr-SFTE
4	Staffing					
5	Full-time Equivalent Faculty	1.600	2.000	25%		Actual = Enrollment Reports FY06
6	Part-time Equivalent Faculty	0.400	0.000	-		Actual = Enrollment Reports FY06
7	Total Faculty FTE	2.000	2.000	0%		
8	Budget					
9	FT Faculty Dollars	98,002	121,785	24%		Actual = Banner FY06, Period 14
10	PT Faculty Dollars	15,925	-	-		Actual = Banner FY06, Period 14
11	Lab Assistant Dollars	8,000	12,944	62%		Actual = Banner FY06, Period 14
12	OPE	61,415	72,484	18%		Actual = Banner FY06, Period 14
13	Materials and Supplies	6,000	5,637	-6%		Actual = Banner FY06, Period 14
14	Equipment	8,000	-	-		CARF \$39,552 is not included
15	Direct Instruction Costs	197,342	212,850	8%	262,977	Expenses are higher than expected.
16	Operating Ratios					
17	R-SFTE/Total Faculty FTE	27.59	28.42	3%		
18	CrdHr-SFTE/Total Faculty FTE	16.00	16.48	3%		Faculty are serving more students.
19	Cost / R-SFTE	3,576	3,745	5%	4,450	
20	Cost / CrdHr-SFTE	6,167	6,458	5%		Cost per student is higher than expected.
21						
22	Revenue		Revenue	Difference	IRAP	
23	Tuition		95,666		141,666	FY06 Tuition Rate x CrdHr SFTE x 45
24	Program Fees (Differential)		41,411		38,754	Credit Hours x \$27.92
25	Public Support / CrdHr SFTE	3,807	216,390		224,957	RFTE*\$3,807
26	Other Instructional Revenue					
27	Total Operating Revenue		353,467		405,377	Contribution to Total College Revenue
28	Instructional Function Revenue	54.5%	192,640			Based on Model's Functional Cost Ratios
29	Direct Instruction Revenue	83.3%	160,466	-25%		Expenses are Greater than Revenue
30						Faculty, Lab Assts, M&S, Equip Costs
31	Indirect Instruction Revenue	16.7%	32,174			Portion of indirect instructional costs
32	Other Functions Revenue	45.5%	160,828			Student Svs, College Svs, etc.

